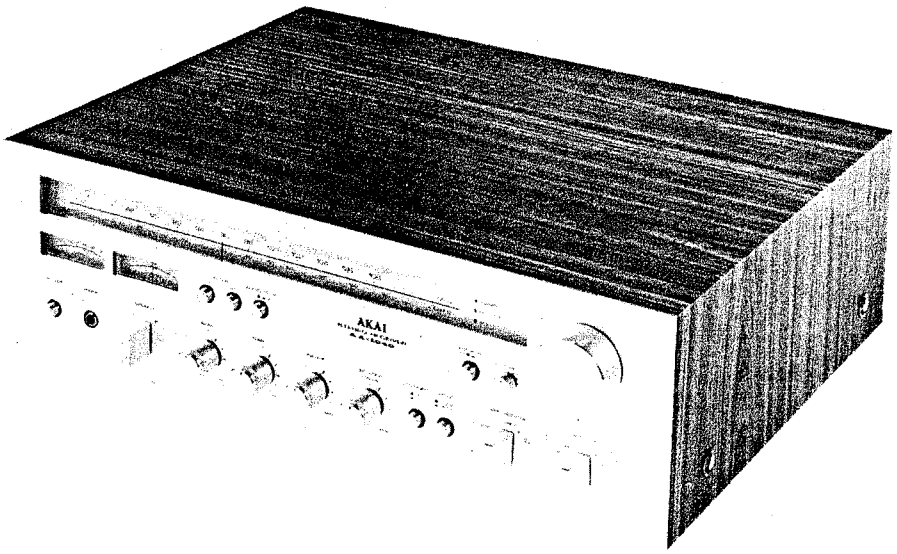
SERVICE MANUAL
PARTS LIST

MODEL AA-1040

AKAI

ALSO APPLICABLE TO MODEL AA-1050

HNJCKUNGEN:



AKAI STEREO RECEIVER

MODEL AA-1040

ALSO APPLICABLE TO MODEL AA–1050

SECTION 1 SERVICE MANUAL 1
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SECTION 1

SERVICE MANUAL

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL OPERATING PRINCIPLES AND ADJUSTMENTS.

MODEL AA–1050

1. AMPLIFIER SECTION

CONTINUOUS POWER OUTPUT		50 watts per channel, min. RMS, at 8 ohms from 20 Hz to 20,000 Hz, with no more than 0.15% total harmonic distortion.
POWER BANDWIDTH (IHF)		7 Hz to 70,000 Hz/8 ohms (Distortion within 0.15%)
INPUT SENSITIVITY	PHONO-1, 2	3 mV/47 k ohms
	TAPE-1, 2	150 mV/100 k ohms
	AUX	150 mV/100 k ohms
SIGNAL TO NOISE RATIO (IHF)	PHONO	Better than 80 dB
	AUX	Better than 90 dB
CHANNEL SEPARATION (IHF)	PHONO	Better than 60 dB (at 1,000 Hz)
EQUALIZER		RIAA ±1 dB (Phono)
TONE CONTROL		Bass . . . ±10 dB at 100 Hz Treble . . . ±10 dB at 10 kHz
LOUDNESS CONTROL		+10 dB at 100 Hz, +6 dB at 10 kHz (Volume control set at −30 dB position)
FILTER		High . . . −10 dB at 10 kHz Low . . . −8 dB at 50 Hz

2. FM TUNER SECTION

FREQUENCY RANGE	88 MHz to 108 MHz
SENSITIVITY (IHF)	1.8 μV
CAPTURE RATIO (IHF)	1.0 dB
SELECTIVITY (IHF)	Better than 100 dB at 98 MHz
SIGNAL TO NOISE RATIO	Better than 75 dB
IMAGE REJECTION	Better than 95 dB at 98 MHz
IF REJECTION	Better than 100 dB at 98 MHz
SPURIOUS REJECTION	Better than 90 dB at 98 MHz
HARMONIC DISTORTION	Monaural . . . Less than 0.25% Stereo . . . Less than 0.3%
FM STEREO SEPARATION	Better than 40 dB (1,000 Hz)
FM MUTING	Variable (3 μV to 300 μV)/ON–OFF
ANTENNA INPUT IMPEDANCE	300 ohms balanced, 75 ohms unbalanced.

3. AM TUNER SECTION

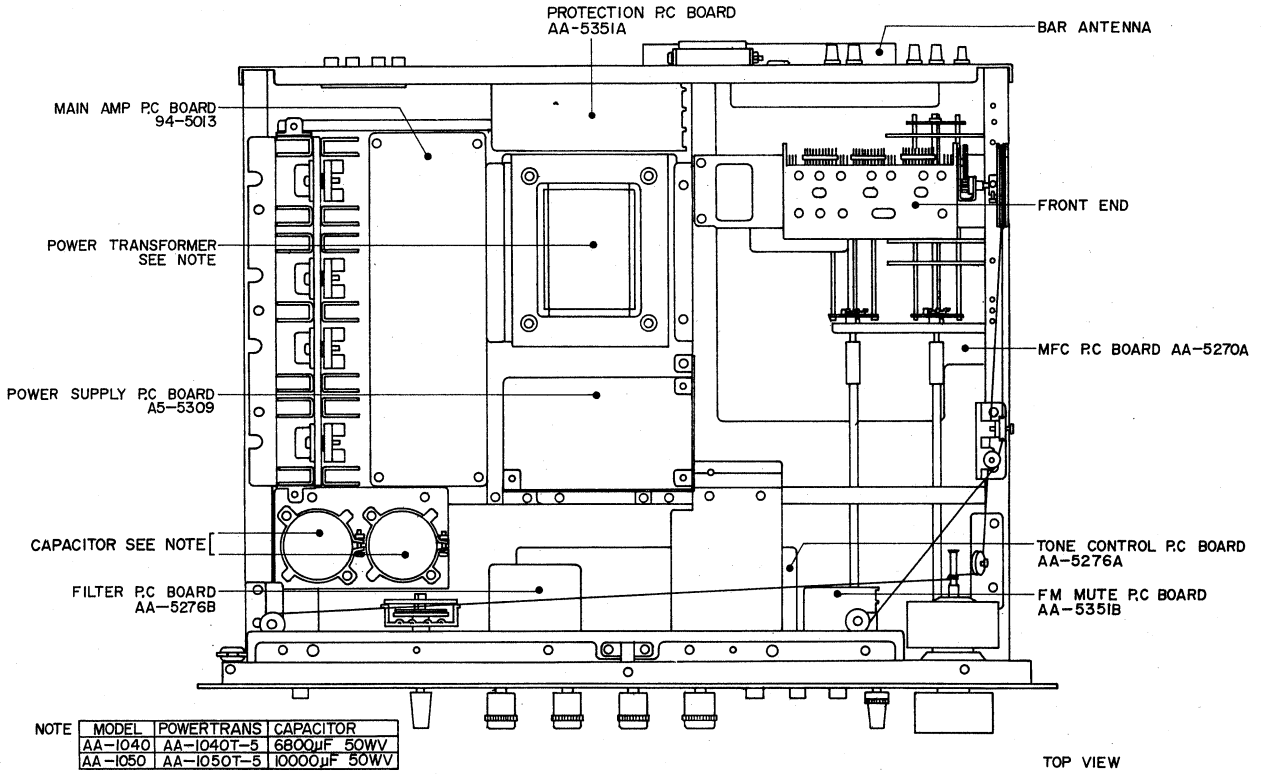
FREQUENCY RANGE	535 kHz to 1,605 kHz
SENSITIVITY (IHF)	180 μV/m (Bar Antenna), 8 μV (EXT Antenna)
IMAGE REJECTION	Better than 55 dB at 1,000 kHz
IF REJECTION	Better than 45 dB at 1,000 kHz
SELECTIVITY (IHF)	Better than 30 dB at 1,000 kHz
AM DISTORTION	Less than 0.6%
SIGNAL TO NOISE RATIO	Better than 50 dB

4. OTHER

TANSISTOR	2SA640-1(E)(F)(G)(H) . . . 4	2SC945L(P)(Q) . . . 4
	2SA733(P)(Q) . . . 1	2SC945L(Q)(R) . . . 2
	2SA733(Q)(R) . . . 1	2SC1222(E)(F) . . . 8
	2SB557(O)(R) . . . 2	2SC1520(I)(L)(K) . . . 2
	2SC458LG(C) . . . 2	2SC1624(O)(Y) . . . 2
	2SC930(E)(F) . . . 1	2SC1628(O)(Y) . . . 4
	2SC945L(K)(P) . . . 8	2SD427(O)(R) . . . 2
IC	LA1230 . . . 1	μPC30C . . . 1
	LA3350 . . . 1	
DIODE	1S2472 . . . 5	WZ130 . . . 2
	1S2473 . . . 1	WZ290 . . . 1
	1N4003 . . . 3	SEL102R . . . 2
	STV–4H . . . 2	HIFI–SPECIAL 4Q0V . . . 4
	SEL103W . . . 4	
POWER REQUIREMENT	CSA, UL and LA Models . . . 120V, 60 Hz CEE Models . . . 220V, 50 Hz Other Models . . . 110V/220V/240V (Switchable)	
DIMENSIONS	480(W)x155(H)x390(D)mm (18.9(W)x6.1(H)x15.4(D) inches)	
WEIGHT	13.0 kg (28.6 lbs)	

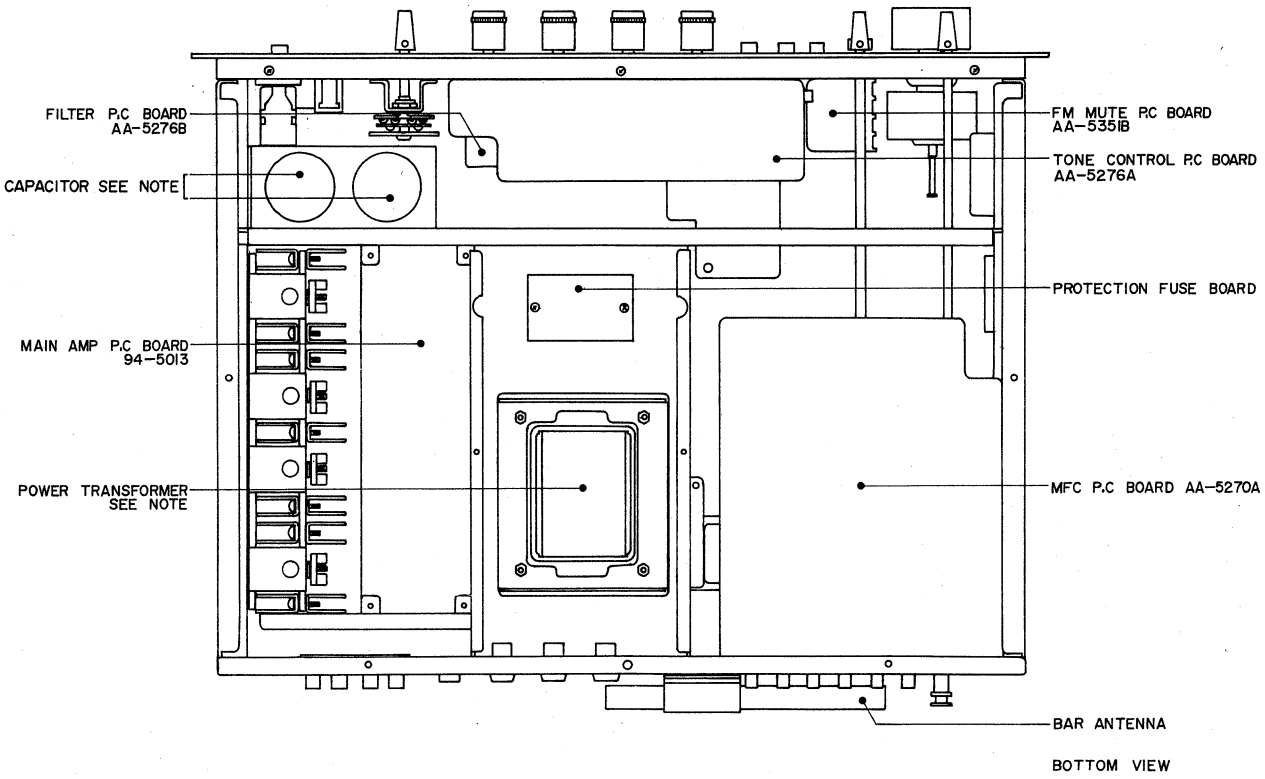
NOTE: Specifications subject to change without notice.

III. ARRANGEMENT OF PRINCIPAL PARTS



NOTE

MODEL	POWERTRANS	CAPACITOR
AA-1040	AA-1040T-5	6800μF 50WV
AA-1050	AA-1050T-5	10000μF 50WV



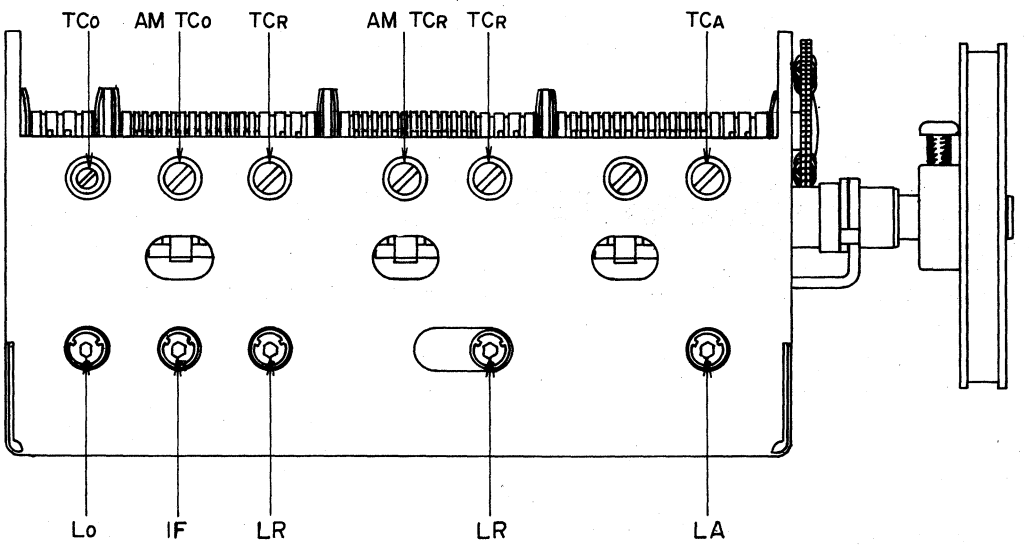


Fig. 2 Front End

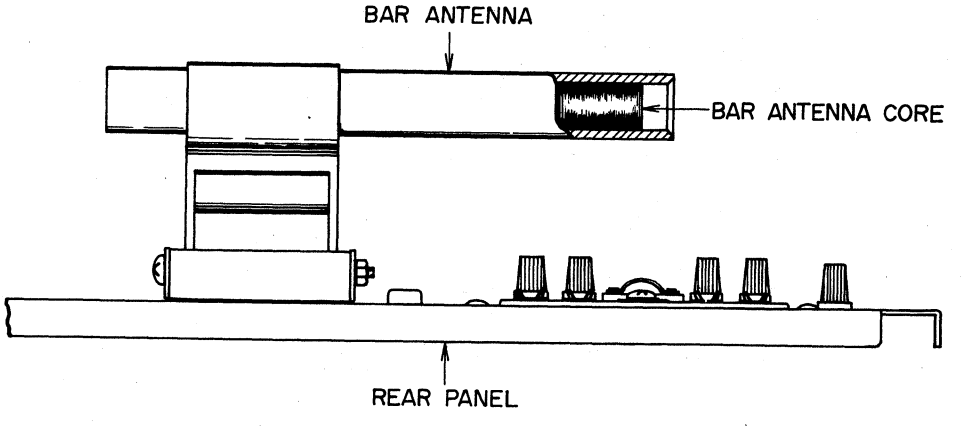


Fig. 3 Bar Antenna

V. AM TUNER SECTION ADJUSTMENTS

Step	Adjustment Item	Adjustment Point	Result	Remarks
1	Low range Frequency Coverage Adjustment	T-2 (RED) (MFC P.C Board)	Error: Less than 2%	520 kHz optional input (See Fig.1)
2	Sensitivity Adjustment	Bar Antenna Core T-1 (RED, BLUE) T-3 (WHT) (MFC P.C Board)	Error: Less than 2%	520 kHz optional input (See Figs.1, 3)
3	High Range Frequency Coverage Adjustment	AM TCo (Front End)	Error: Less than 2%	1,400 kHz optional input (See Fig.2)
4	Sensitivity Adjustment	AM TCR (Front End)	Maximum Sensitivity	1,400 kHz optional input (See Fig.2)

NOTE: Repeat procedures in steps from 1 to 4.

Chart-2

VI. MAIN AMPLIFIER ADJUSTMENTS

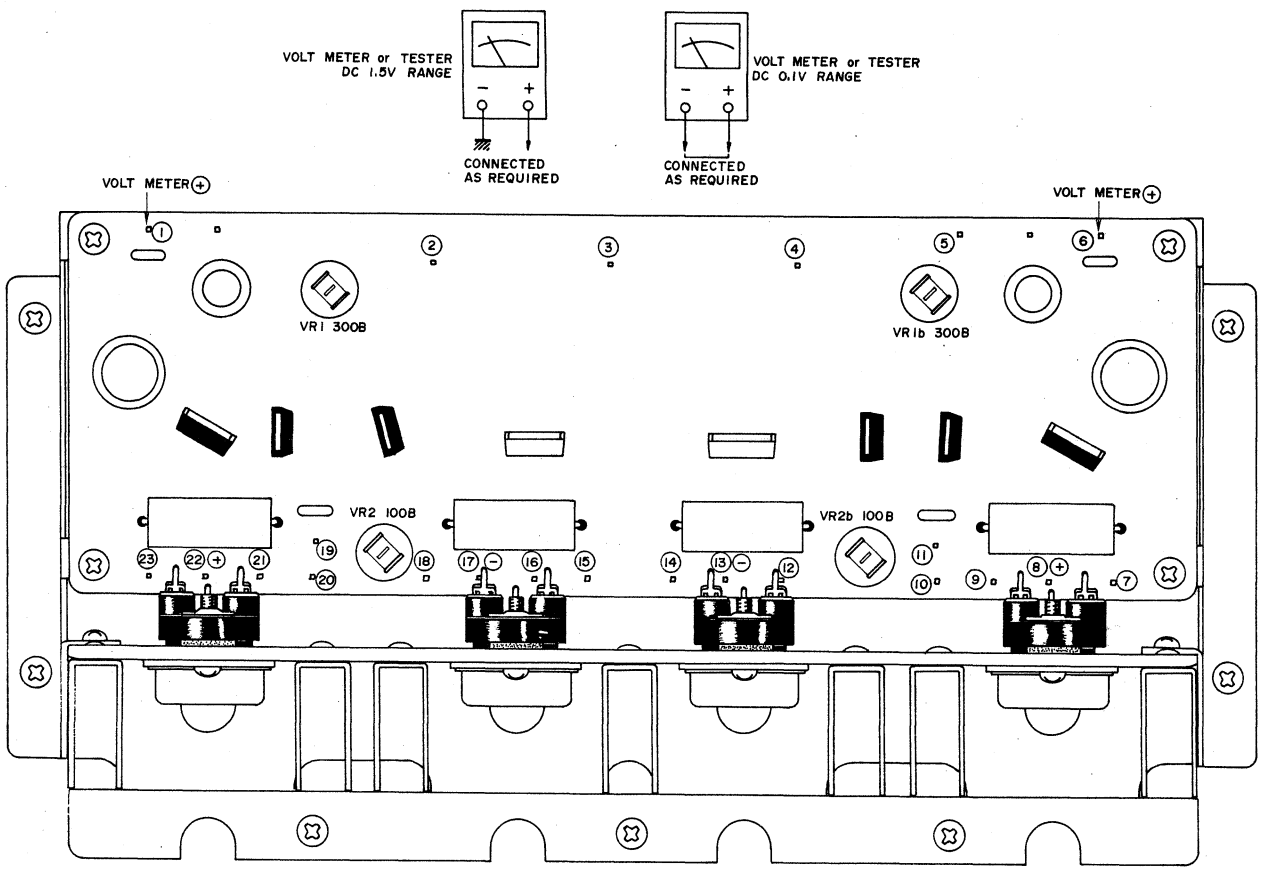


Fig. 4 Main Amplifier P.C Board 94-5013

1) Idling Current Adjustment
   a. Set voltmeter or tester to DC 0.1V range and connect between terminals (22) and (17) (Left channel), (8) and (13) (Right channel) of main amplifier P.C Board.
   b. Adjust Main amplifier P.C Board semi-fixed resistors VR2 100B (Left channel) and VR2b 100B (Right channel) to obtain 30 mV on both channels.

2) Zero Electrical Potential Adjustment
   a. Set voltmeter or tester to DC1.5V range and connect between terminals (1) (Left channel), (6) (Right channel) of Main amplifier P.C Board and chassis.
   b. Adjust Main amplifier P.C Board semi-fixed resistors VR1 300B (Left channel), VR1b 300B (Right channel) to obtain Zero voltmeter indication.

VIII. CLASSIFICATION OF VARIOUS P.C BOARDS

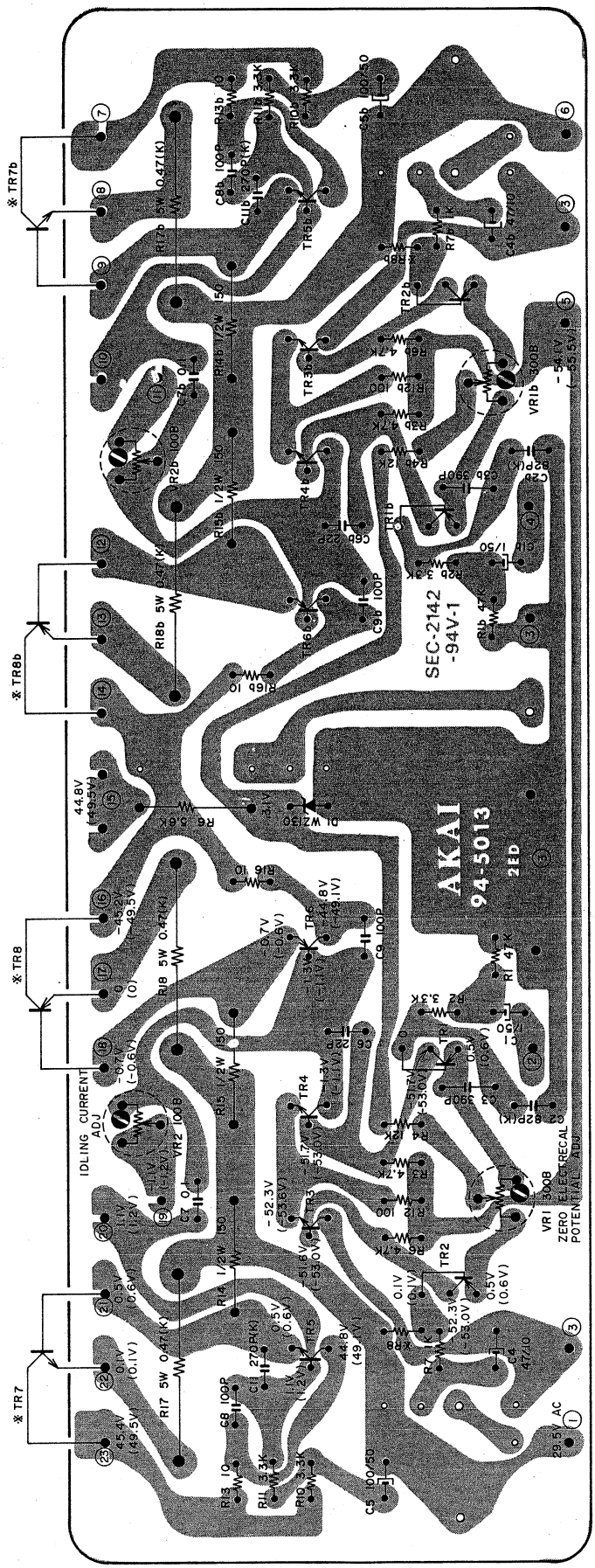
1. P.C BOARD INTERCHANGEABILITY

P.C Board	AA-1040	AA-1050
MFC P.C Board	AA-5270A	AA-5270A
Main Amp P.C Board	94-5013	*94-5013
Power Supply P.C Board	A5-5309	A5-5309
Filter/Mute P.C Board	AA-5276B	AA-5276B
FM Mute P.C Board	AA-5351B	AA-5351B
Tone Control P.C Board	AA-5276A	AA-5276A
Protection P.C Board	AA-5351A	AA-5351A
Function LED P.C Board		AA-5350
LED P.C Board	AA-5270B	*AA-5270B

Chart-3

* Asterisk mark indicates non-interchangeability.

2) MAIN AMP P.C BOARD 94-5013

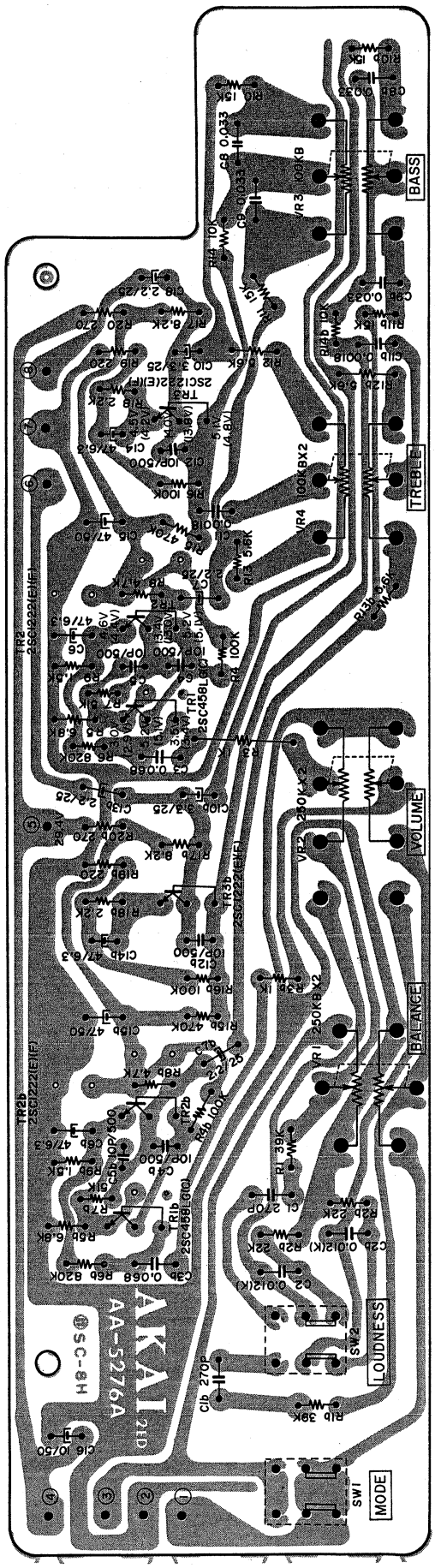


VOLTAGE IN PARENTHESES ARE FOR MODEL AA-1050

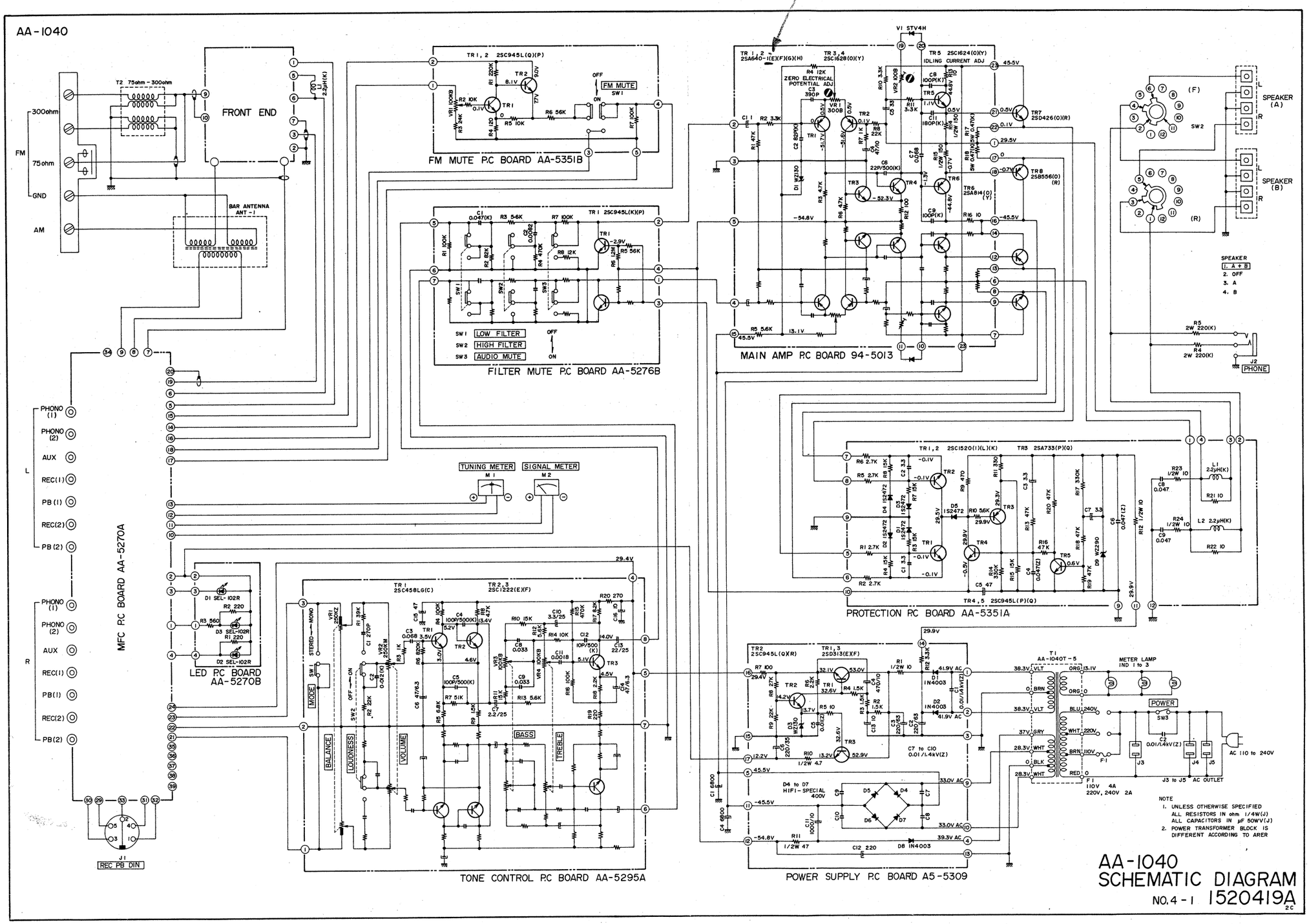
	AA-1040	AA-1050
※R8	22K	24K
※TR7	2SD426(O)(R)	2SD427(O)(R)
※TR8	2SB556(O)(R)	2SB557(O)(R)

TR1,2 2SA640-1(E)(F)(G)(H)
TR3,4 2SC1628(O)(Y)
TR5 2SC1625(O)(Y)
TR6 2SAB14(O)(Y)

6) TONE CONTROL P.C BOARD AA-5276A



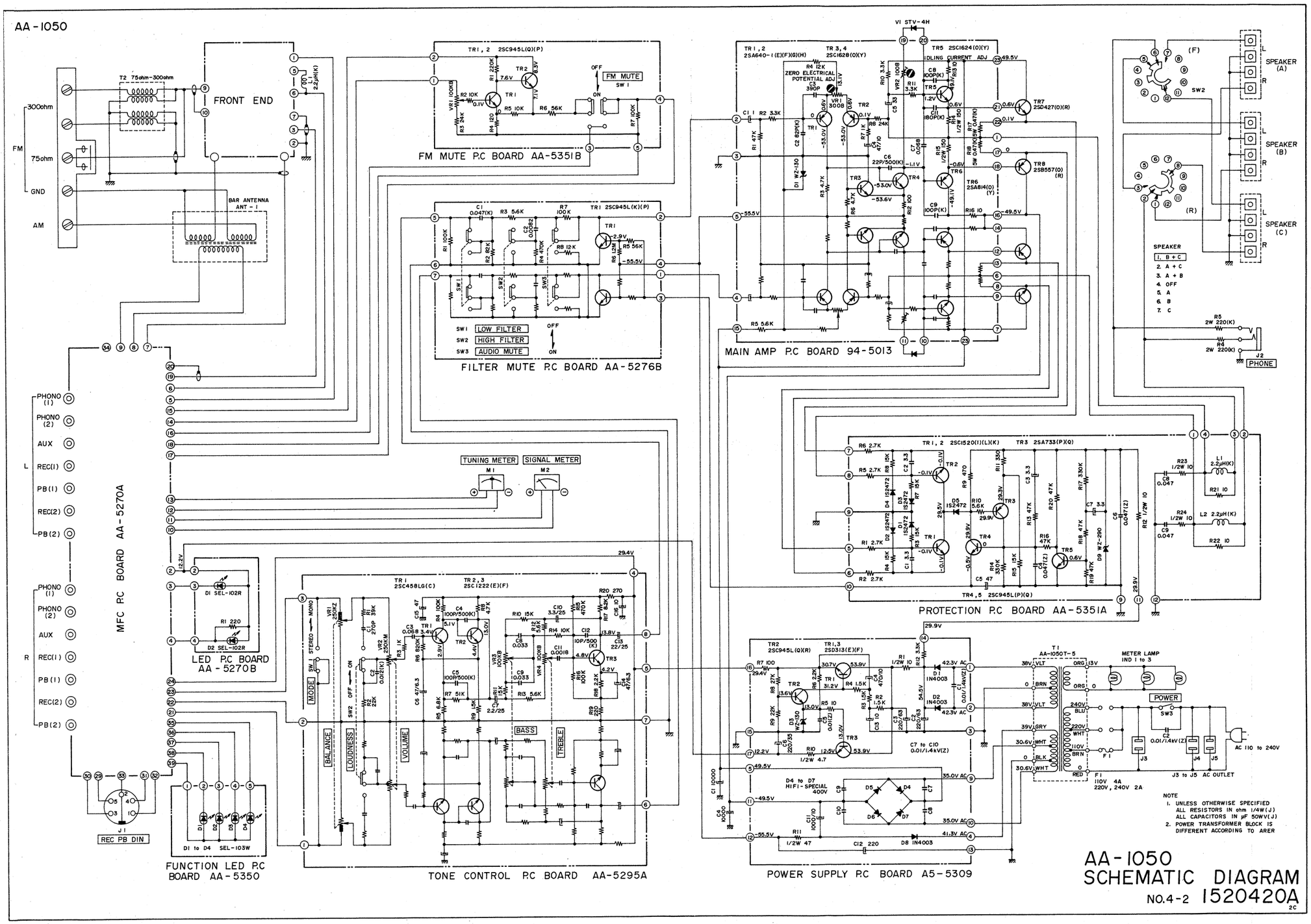
AA-1040



NOTE
1. UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN ohm 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)
2. POWER TRANSFORMER BLOCK IS DIFFERENT ACCORDING TO ARER

AA-1040
SCHEMATIC DIAGRAM
NO.4-1 1520419A
2C

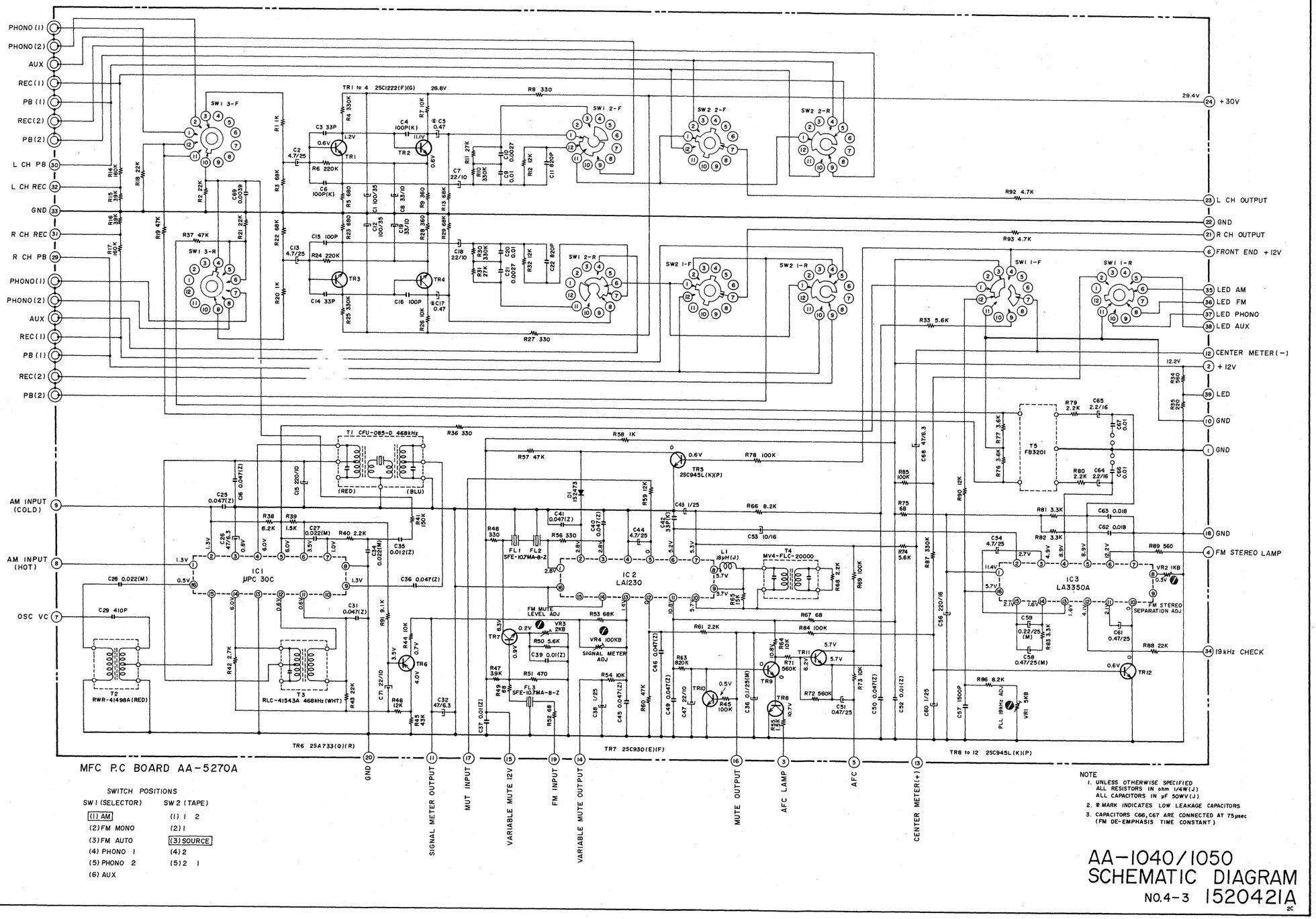
AA-1050



NOTE
1. UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN ohm 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)
2. POWER TRANSFORMER BLOCK IS DIFFERENT ACCORDING TO ARER

AA-1050
SCHEMATIC DIAGRAM
NO.4-2 1520420A
2C

AA-1040/1050



MFC P.C BOARD AA-5270A

SWITCH POSITIONS

SW1 (SELECTOR)	SW2 (TAPE)
[(1) AM]	(1) 1 2
(2) FM MONO	(2) 1
(3) FM AUTO	[(3) SOURCE]
(4) PHONO 1	(4) 2
(5) PHONO 2	(5) 2 1
(6) AUX	

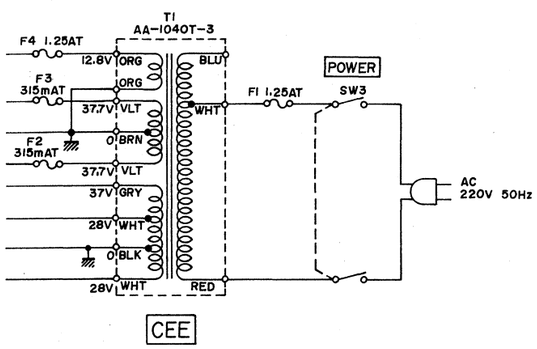
NOTE
1. UNLESS OTHERWISE SPECIFIED
   ALL RESISTORS IN ohm 1/4W(J)
   ALL CAPACITORS IN μF 50WV(J)
2. ✱ MARK INDICATES LOW LEAKAGE CAPACITORS
3. CAPACITORS C66, C67 ARE CONNECTED AT 75μsec (FM DE-EMPHASIS TIME CONSTANT)

AA-1040/1050 SCHEMATIC DIAGRAM

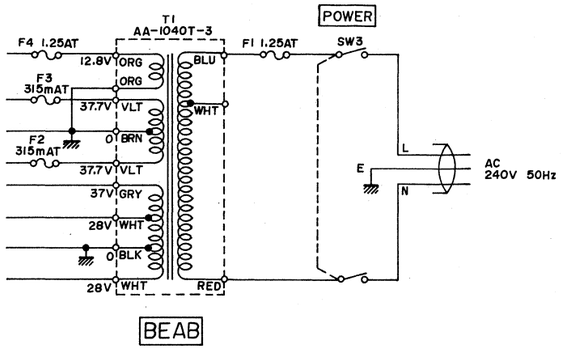
NO.4-3 1520421A

2C

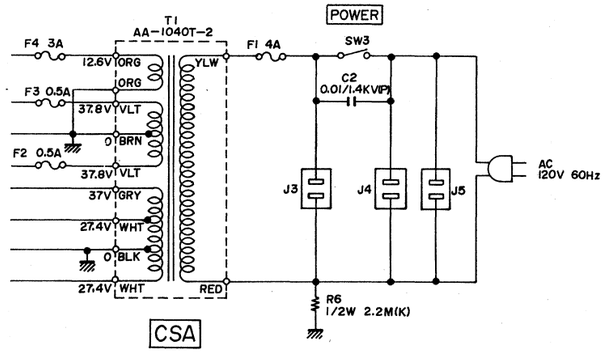
AA-1040/1050



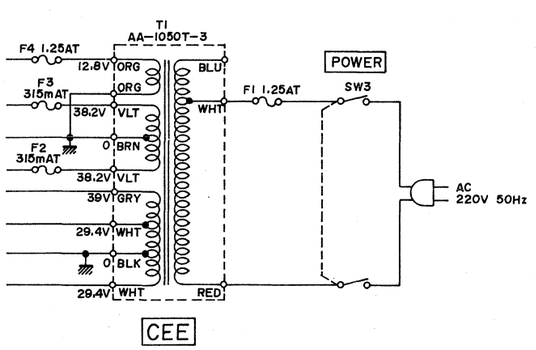
CEE



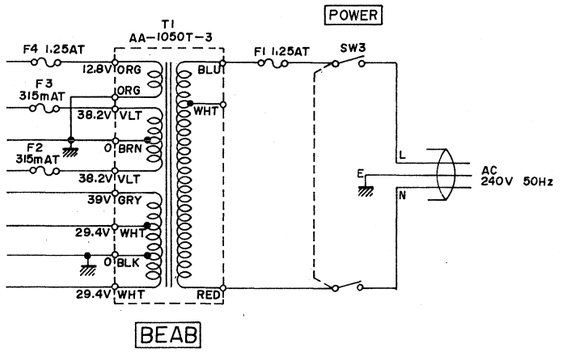
BEAB



CSA



CEE



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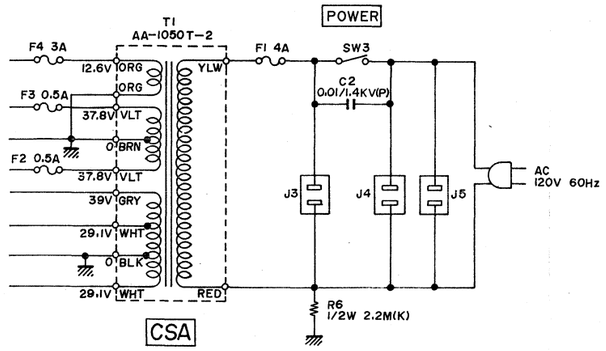

CSA

NOTE
POWER TRANSFORMER BLOCK IS
DIFFERENT ACCORDING TO AREA

AA-1040/1050
SCHEMATIC DIAGRAM
NO. 4-4 1520422A

SECTION 2

PARTS LIST

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5. FM MUTE P.C BOARD (AA-5351B) BLOCK 21
6. TONE CONTROL P.C BOARD (AA-5276A) BLOCK 22
7. PROTECTION P.C BOARD (AA-5351A) BLOCK 22
8. FUNCTION LED P.C BOARD (AA-5350) BLOCK 22
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10. AMP ASSEMBLY BLOCK 25
11. FINAL ASSEMBLY BLOCK 25
12. LIST OF INTERCHANGEABLE SEMICONDUCTORS 26
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Some of the parts in this parts list are only available as a complete assembly, and can not be supplied as individual parts.

BASIC PARTS LIST

Parts Nomenclature	Parts No.	Parts Nomenclature	Parts No.
Multi Function P.C Board Comp.	BA658888	Power Trans. AA-1050T-5	BT654297
Ceramic Filter SFE-10.7 MA-8-Z	ER650430	Power Trans. AA-1040T-2 (CSA)	BT678071
AM-IF Trans. CFU-085-D 468kHz	EO650384	Power Trans. AA-2050T-2 (CSA)	BT678205
OSC. Coil RWR-41497A	EO645838	Front End FL424U	TA654074
AM-IF Trans. RLC-41543A 468kHz	EO650373	Push Sw. SDG-1P TV-5	ES679566
Discri Coil MV4-FLC-20000	EO650608	Rotary Sw. SR-321N 1-2-4(1040)	ES651047
Block Filter FB3201	ER656908	Rotary Sw. SR-321N 1-2-7(1050)	ES654096
Rotary Sw. SR26N 3-9-6 22.5kc	ES650283	Flywheel Block Comp.	BF649348
Pin Jack 14P JPJ379-1-1	EJ650272	Scale Plate B (1040)	TA648358
Main Amp. P.C Board Comp. (1040)	BA658945	Scale Plate C (1050)	TA648360
Main Amp. P.C Board Comp. (1050)	BA658956	Tuning Meter 85C243	EM664402
Power Supply P.C Board Comp.	BA658901	Signal Meter 85C242	EM664413
Filter Mute P.C Board Comp.	BA658980	Front Panel Block Comp. (1040)	BZ658866
FM Mute P.C Board Comp.	BA660003	Front Panel Block Comp. (1050)	BZ658877
Tone Cont. P.C Board Comp. (1040)	BA658967	Bottom Plate	SP655593
Tone Cont. P.C Board Comp. (1050)	BA658978	Bottom Plate B (CSA)	SP664176
Protection P.C Board Comp.	BA658912	Cabinet	BC655604
Function LED P.C Board Comp.	BA659013	Push Button Knob J	SK634410
LED P.C Board Comp.	BA660014	Single Knob	SK646817
Rear Panel 1 (1040)	SP655558	Double Knob (Lower) (1050)	SK645208
Rear Panel 3 (1050)	SP655571	Double Knob (Upper) (1050)	SK644670
Rear Panel 1-A (1040) (CSA)	SP672827	Single Knob (Small)	SK646841
Rear Panel 3-A (1050) (CSA)	SP672838	Selector Knob	SK646830
Bar Antenna	EE668496	Tuning Knob (Large)	SK647987
Power Trans. AA-1040T-5	BT654186		

1 MULTI FUNCTION P.C BOARD (AA–5270A) BLOCK

Symbol No.	Parts No.	Description	Q'ty
1-1	BA658888	Multi Function P.C Board Comp. (AA-5270A)	1
1-IC1	EI650362	IC MPC-30C	1
1-IC2	EI650586	IC LA-1230	1
1-IC3	EI650597	IC LA-3350A	1
1-TR1to4	ET459810	Transistor 2SC1222(E)(F)	4
1-TR5	ET635220	Transistor 2SC945L(K)(P)	1
1-TR6	ET557965	Transistor 2SA733(Q)(R)	1
1-TR7	ET618873	Transistor 2SC930(E)(F)	1
1-TR8to12	ET635220	Transistor 2SC945L(K)(P)	5
1-D1	ED624903	Silicon Diode 1S2473	1
1-F1to3	ER650430	Ceramic Filter SFE-10.7 MA-8-Z	3
1-L1	EO650620	Inductor 144LZ 18μH(J)	1
1-T1	EO650384	AM-IF Trans. CFU-085-D 468 kHz	1
1-T2	EO645838	OSC. Coil RWR41497A	1
1-T3	EO650373	AM-IF Trans. RLC-41543A 468 kHz	1
1-T4	EO650608	Discri Coil MV4-FLC-20000	1
1-T5	ER656908	Block Filter FB3201	1
1-VR1	EV499364	Semi-fixed/Vol. V10K8-4-2 5 kB	1
1-VR2	EV484863	Semi-fixed/Vol. V10K8-4-2 1 kB (Metalized Film)	1
1-VR3	EV464196	Semi-fixed/Vol. V8K4-1 2 kB	1
1-VR4	EV464231	Semi-fixed/Vol. V8K4-1 100 kB	1
1-SW1	ES650283	Rotary SW. SR26N 3-9-6 22.5 kC	1
1-SW2	ES650305	Rotary SW. SR26N 2-4-5 22.5 KC	1
1-2	EJ539662	Wrapping Post 1x17	35
1-3	MZ656807	Jumper Wire, P.C Board 12.5 mm	7
1-4	TA648156	Switch Support	1
1-5	ZS422076	Screw, pan head 3x5	1
1-6	EJ650272	Pin Jack 14P JPJ379-1–1	1
		Capacitor, Vertical Type	
1-C1	EC455354	Elect. 100μF 35WV	1
1-C2	EC450527	Elect. 4.7μF 25WV	1
1-C3	EC394918	VFM 33PF(K) 50WV	1
1-C4	EC290531	VFM 100PF(K) 150WV	1
1-C5	EC432808	Elect. 0.47μF 50WV NL	1
1-C6	EC290531	VFM 100PF(K) 50WV	1
1-C7	EC523271	Elect. 22μF 10WV	1
1-C8	EC220590	Elect. 33μF 10WV	1
1-C9	EC650340	Ceramic DD132A 0.01μF(J) 50WV	1
1-C10	RC650351	Ceramic DD360A 0.0027μF(J) 50WV	1
1-C11	EC412593	Styrol 820PF(J) 50WV	1
1-C12	EC455354	Elect. 100μF 35WV	1
1-C13	EC450527	Elect. 4.7μF 25WV	1
1-C14	EC394918	VFM 33PF(K) 50WV	1
1-C15,16	EC290531	VFM 100PF(K) 50WV	2
1-C17	EC432808	Elect. 0.47μF 50 WV NL	1
1-C18	EC523271	Elect. 22μF 10WV	1
1-C19	EC220590	Elect. 33μF 20WV	1
1-C10	EC650340	Ceramic DD312A 0.01μF(J) 50WV	1
1-C21	EC650351	Ceramic DD360A 0.0027μF(J) 50WV	1
1-C22	EC422593	Styrol 820PF(J) 50WV	1
1-C23	EC329782	Elect. 220μF 10WV	1
1-C24,25	EC427228	Ceramic DD111FZ 0.047μF(Z) 50WV	2
1-C26	EC329771	Elect. 47μF 6.3WV	1
1-C27,28	EC650417	Ceramic DD380-950BC 0.022μF(M) 50WV	2
1-C29	EC658001	Styrol 410PF(J) 50WV	1
1-C31	EC427228	Ceramic DD111FZ 0.047μF(Z) 50WV	1
1-C32	EC329771	Elect. 47μF 6.3WV	1
1-C34	EC650417	Ceramic DD380-950BC 0.022μF(M) 50WV	1
1-C35	EC650733	Ceramic DD360-950BC 0.012μF(M) 50WV	1
1-C36	EC427228	Ceramic DD111FZ 0.047μF(Z) 50WV	1
1-C37	EC55 441	Ceramic DD106FZ 0.01μF(Z) 50WV	1
1-C38	EC450055	Elect. 1μF 25WV	1
1-C39	EC551441	Ceramic DD106FZ 0.01μF(Z) 50WV	1
1-C40,41	EC427228	Ceramic DD111FZ 0.047μF(Z) 50WV	2
1-C42	EC650463	Ceramic RD204 NPO 33PF(K) 50WV	1
1-C43	EC450055	Elect. 1μF 25WV	1
1-C44	EC450527	Elect. 4.7μF 25WV	1
1-C45,46	EC427228	Ceramic DD111FZ 0.047μF(Z) 50WV	2
1-C47	EC523271	Elect. 22μF 10WV	1
1-C48	EC523282	Solid Aluminum 0.1μF(M) 25WV	1
1-C49,50	EC427278	Ceramic DD111FZ 0.047μF(Z) 50WV	2
1-C51	EC368256	Elect. 0.47μF 25WV	1
1-C52	EC551441	Ceramic DD106FZ 0.01μF(Z) 50WV	1
1-C53	EC320051	Elect. 10μF 16WV	1
1-C54	EC450527	Elect. 4.7μF 25WV	1
1-C56	EC321208	Elect. 220μF 16WV	1
1-C57	EC666494	Styrol 1500PF(K) 50WV	1
1-C58	EC621257	Solid Aluminum 0.47μF(M) 25WV	1
1-C59	EC522167	Solid Aluminum 0.22μF(M) 25WV	1
1-C60	EC450055	Elect. 1μF 25WV	1
1-C61	EC368256	Elect. 0.47μF 25WV	1
1-C62,63	EC389485	Mylar 0.018μF(J) 50WV	2
1-C64,65	EC220432	Elect. 2.2μF 25WV	2
1-C66,67	EC650340	Ceramic DD312A 0.01μF(J) 50WV	2
1-C68	EC329771	Elect. 47μF 6.3WV	1
1-C69	EC668520	Ceramic DD380A 0.0039μF(K) 50WV	1
1-C70	EC669060	FM 12PF(K) 500WV	1
1-C71	EC523271	Elect. 22μF 10WV	1
1-C72	EC450055	Elect. 1μF 25WV	1

Carbon Resistor Omitted

2 MAIN AMP P.C BOARD (94-5013) BLOCK

Symbol No.	Parts No.	Description	Q'ty
2-1	BA658945	Main Amp P.C. Board Comp. (94-5013)	1
2-2	BA658956	Main Amp P.C Board Comp. (94-5013)(1050)	1
2-TR1,2	ET661836	Transistor 2SA640-1(P)(Q)	4
2-TR3,4	ET623035	Transistor 2SC1628(O)(Y)	4
2-TR5	FT623046	Transistor 2SC1624(O)(Y)	2
2-TR6	ET623057	Transistor 2SA814(O)(Y)	2
2-D1	ED539976	Zener Diode WZ-130	1
2-VR1	EV551643	Semi-fixed Vol. SR19R 330 ohms B	2
2-VR2	EV361798	Semi-fixed Vol. SR19R 100 ohms B	2
2-3	EJ539662	Wrapping Post 1x17	25
2-R17,18	ER653567	Cement/R. 5W 0.47 ohms (K) (Wire-wound Type)	4
		Capacitor Vertical Type	
2-C1	EC313108	Elect. 1μF 50WV	2
2-C2	EC389024	VFM 82PF(K) 50WV	2
2-C3	EC339063	VFM 390PF(K) 50WV	2
2-C4	EC493637	Elect. 47μF 10WV	2
2-C5	EC370631	Elect. 33μF 50WV	2
2-C6	EC556525	FM 22PF(K) 500WV	2
2-C7	EC654041	Ceramic DD312-950BC 0.068μF(M) 50WV	2
2-C8,9	EC290531	VFM 100PF(K) 50WV	4
2-C11	EC451451	VFM 180PF(K) 50WV	2

Carbon Resistor Omitted

3 POWER SUPPLY P.C BOARD (A5-5309) BLOCK

Symbol No.	Parts No.	Description	Q'ty
3-1	BA658901	Power Supply P.C Board Comp. (AA-5309)	1
3-TR1	ET452531	Transistor 2SD313(E)(F)	1
3-TR2	ET639437	Transistor 2SC945L(Q)(P)	1
3-TR3	ET452531	Transistor 2SD313(E)(F)	1
3-D1,2	ED570295	Silicon Diode 1N4003	2
3-D3	ED539976	Zener Diode WZ-130	1
3-D4to7	ED558033	Silicon Diode HIFI 400V 3A (Special)	4
3-D8	ED570295	Silicon Diode 1N4003	1
3-2	TA646874	Power Supply P.C Board Table (AA-5210)	1
3-3	ZS325495	Tappi g Screw 2 3x6 (BR)	3
3-4	ZW632226	Insulator Washer Bush M	1
		Capacitor, Vertical Type	
3-C1	EC551160	Ceramic NB821YZ 0.01μF(Z) 1.4 kWV	1
3-C2,3	EC660060	Elect. 220μF 63WV	2
3-C4	EC220768	Elect. 470μF 10WV	1
3-C5	EC551441	Ceramic DD106FZ, 0.01μF(Z) 50WV	1
3-C6	EC405044	Elect. 22μF 35WV	1
3-C7to10	EC551160	Ceramic NB821YZ 0.01μF(Z) 1.4 kWV	5
3-C11	EC220410	Elect. 1000μF 10WV	1
3-C12	EC660060	Elect. 220μF 63WV	1
3-C13	EC321221	Elect. 100μF 50WV	1

Carbon Resistor Omitted

4 FILTER MUTE P.C BOARD (AA–5276B) BLOCK

Symbol No.	Parts No.	Description	Q'ty
4-1	BA658980	Filter Mute P.C Board Comp. (AA-5276B)	1
4-TR1	ET635220	Transistor 2SC945L(K)(P)	2
4-SW1	ES624701	Push SW. 3FT-0005FF1320	1
4-C1	ES650788	Ceramic/C. DD310-950BC 0.047μF(K) 50WV	2
4-C2	EC654028	Ceramic/C. DD312-257A 0.0082μF(J) 50WV	2
4-2	EJ539662	Wrapping Post 1x17	8

Carbon Resistor Omitted

5 FM MUTE P.C BOARD (AA–5351B) BLOCK

Symbol No.	Parts No.	Description	Q'ty
5-1	BA660003	FM Mute P.C Board Comp. (AA-5351B)	1
5-TR1,2	ET639437	Transistor 2SC945L(Q)(P)	2
5-SW1	ES655661	Push Sw. 1F-0003AF1620	1
5-VR1	EV650801	Vol. V16L4PHN B100K	1
5-2	EJ539662	Wrapping Post 1x17	5

Carbon Resistor Omitted

6 TONE CONTROL P.C BOARD (AA–5276A) BLOCK

Symbol No.	Parts No.	Description	Q'ty
6-1	BA658967	Tone Control P.C Board Comp. (AA-5276A)	1
6-2	BA658978	Tone Control P.C Board Comp. (AA-5276A)(1050)	1
6-TR1	ET234854	Transistor 2SC458LG(C)	2
6-TR2,3	ET459810	Transistor 2SC1222(E)(F)	4
6-VR1	EV650711	Co-axial 2-throw/Vol. V24L5GPHN 1Z250kx2	1
6-VR2	EV650700	Co-axial 2-throw/Vol. V24L5GPHN 3 BM 250kx2	1
6-VR3,4	EV650722	Co-axial 2-throw/Vol. V24L5GPHN 1 kB 100kx2	2
6-VR3,4	EV654030	Double/Vol. V24L5DGPHN 1 kB 100kx2 (w/click)(1050)	2
6-3	EJ539662	Wrapping Post 1x17	8
		Capacitor, Vertical Type	
6-C1	EC336194	VFM 270PF(J) 50WV	2
6-C2	EC650733	Ceramic DD360-950BC 0.012μF(K) 50WV	2
6-C3	EC654041	Ceramic DD312-950BC 0.068μF(M) 50WV	2
6-C4,5	EC474671	FM 10PF(K) 50WV	4
6-C6	EC329771	Elect. 47μF 6.3WV	2
6-C7	EC220432	Elect. 2.2μF 25WV	2
6-C8,9	EC379157	Mylar 0.033μF(J) 50WV	4
6-C10	EC331828	Elect. 3.3μF 25WV	2
6-C11	EC654052	Ceramic DD360A 0.0018μF(J) 50WV	2
6-C12	EC474671	FM 10PF(K) 50WV	2
6-C13	EC220432	Elect. 2.2μF 25WV	2
6-C14	EC329771	Elect. 47μF 6.3WV	2
6-C15	EC346735	Elect. 47μF 50WV	2
6-C16	EC450213	Elect. 10μF 50WV	1

Carbon Resistor Omitted

7 PROTECTION P.C BOARD (AA–5351A) BLOCK

Symbol No.	Parts No.	Description	Q'ty
7-1	BA658912	Protection P.C Board Comp. (AA-5351A)	1
7-TR1,2	ET679814	Transistor 2SC1520-1(L)(K)	2
7-TR3	ET554657	Transistor 2SA733(P)(Q)	1
7-TR4,5	ET639437	Transistor 2SC945L(Q)(P)	2
7-D1to5	ED656278	Silicon Diode 1S2472 VE	5
7-D6	ED515981	Zener Diode WZ-290	1
7-L1,2	E0650823	Phase Equalizer Coil 2.2 μH	2
7-2	EJ539662	Wrapping Post 1x17	12
		Capacitor, Vertical Type	
7-C3	EC539943	Elect. 3.3 μF 50WV	1
7-C4	EC427228	Ceramic DD111FZ 0.047 μF(Z) 50WV	1
7-C5	EC346735	Elect. 47 μF 50WV	1
7-C6	EC427228	Ceramic DD111FZ 0.047 μF(Z) 50WV	1
7-C7	EC539943	Elect. 3.3 μF 50WV	1
7-C8	EC658012	Ceramic DD310-950BC 0.047 μF(M) 50WV	2

Carbon Resistor Omitted

8 FUNCTION LED P.C BOARD (AA–5350) BLOCK

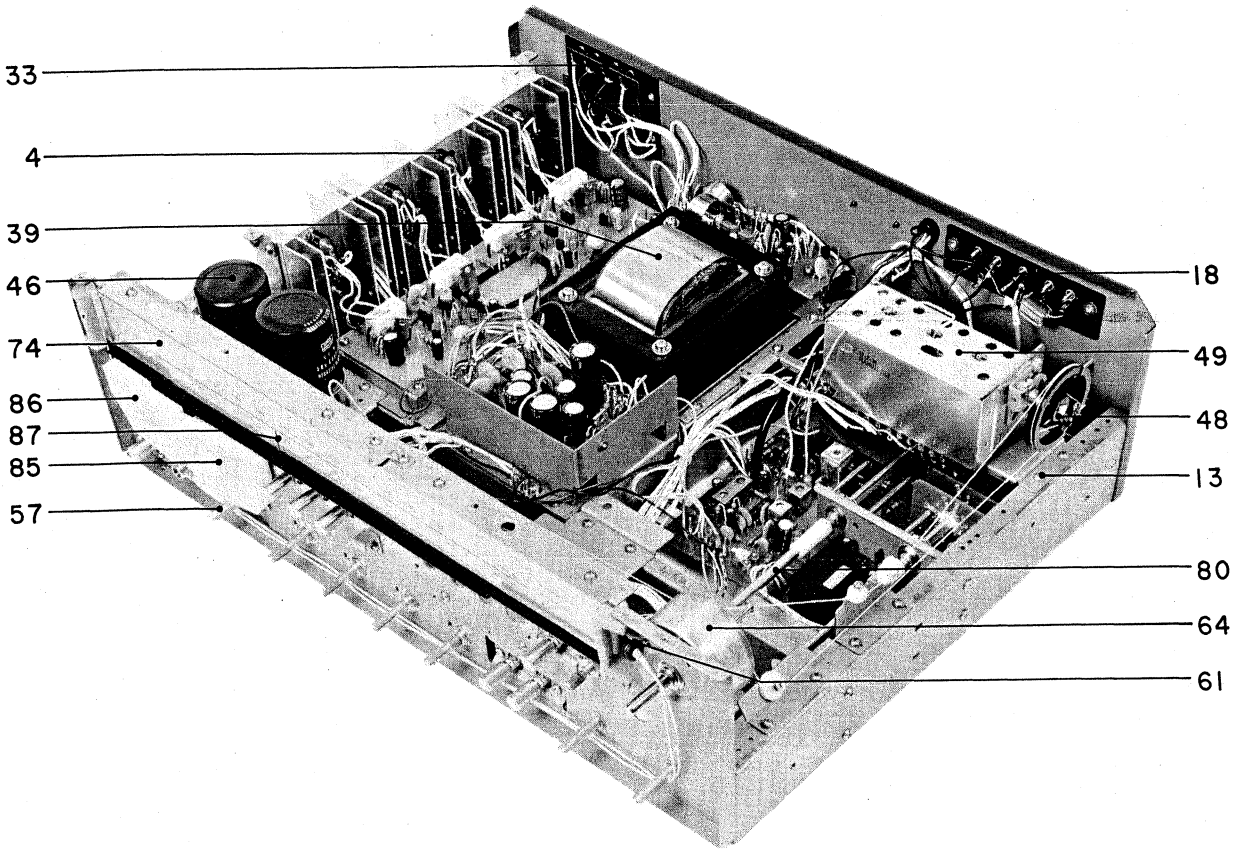
Symbol No.	Parts No.	Description	Q'ty
8-1	BA659013	Function LED P.C Board Comp. (AA-5350)	1
8-D1to4	ED653624	Luminous Diode SEL-103W	4
8-2	EZ652972	LED P.C Board Support	1

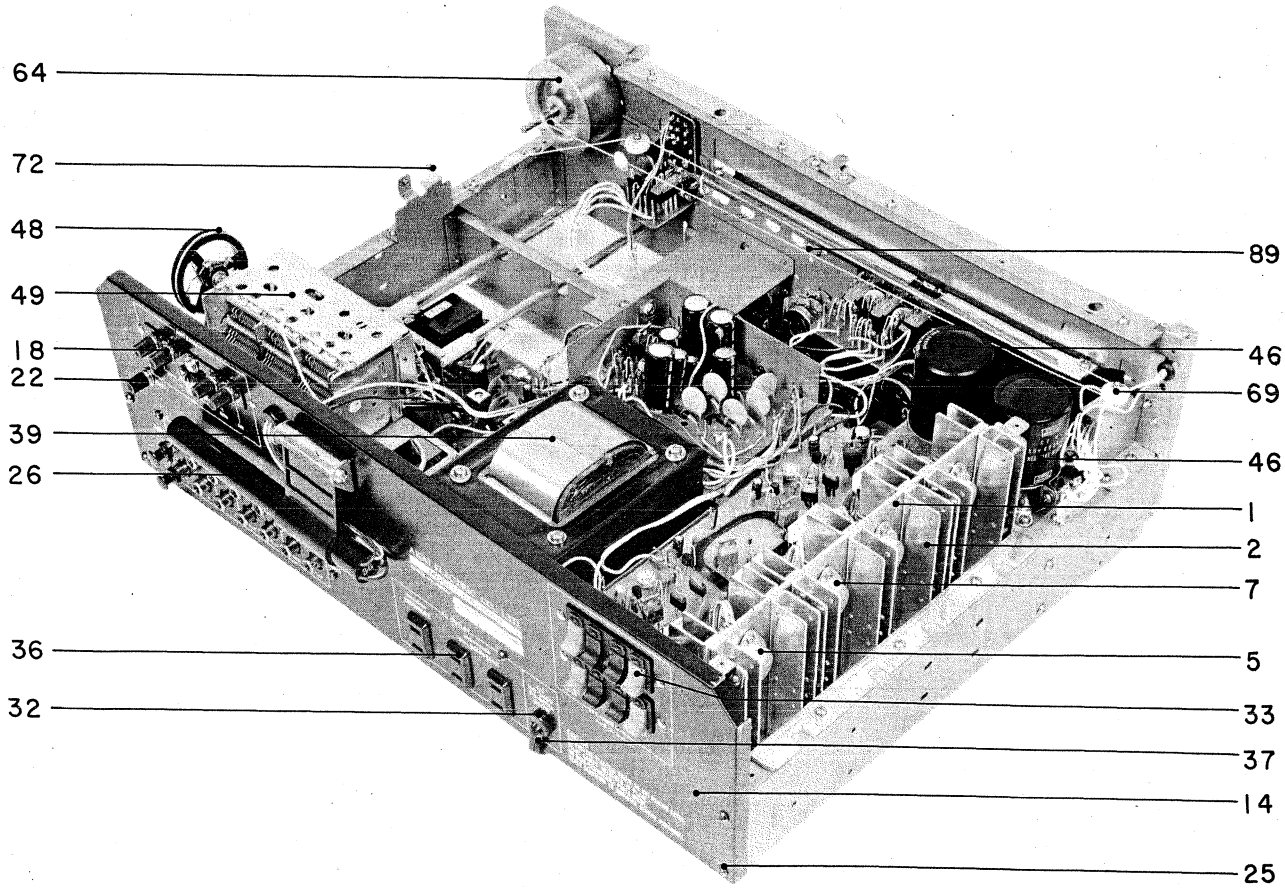
9 LED P.C BOARD (AA–5270B) BLOCK

Symbol No.	Parts No.	Description	Q'ty
9-1	BA660014	LED P.C Board Comp. (AA-5270B)	1
9-2	BA660025	LED P.C Board Comp. (AA-5270B)(1050)	1
9-D1to3	ED650812	Luminous Diode SEL-102R	3
9-D1,2	ED650812	Luminous Diode SEL-102R (1050)	2
9-3	TA646648	Indicator Table (AA-5225)	1
9-4	ZS422076	Screw, pan head 3x5	1

Carbon Resistor Omitted

10 PHOTO OF AMP ASSEMBLY BLOCK





10) AMP ASSEMBLY BLOCK

MAIN AMP BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
10-1	EZ655503	Heat-sink Plate	AA-5361	1
10-2	EZ655481	Heat-sink piece	AA-5364	14
10-3x	ZS523664	Tapping Screw #2 3x10(BR)		14
10-4	EJ624486	Power TR. Socket	31-1-97	4
10-5	ET623013	Transistor 2SD427(O)(R)	45-1-201	2
10-6x	ET655648	Transistor 2SD426(O)(R) (1050)	45-1-221	2
10-7	ET623024	Transistor 2SB557(O)(R)	45-1-199	2
10-8x	ET655650	Transistor 2SB556(O)(R) (1050)	45-1-222	2
10-9x	EZ624734	Mylar Sheet	45-16-18	4
10-10x	ZS422965	Screw, pan head 3x15		8
10-11x	ED551733	Silicon Varistor STV-4H	45-10-10	2
10-12x	ZS447805	Tapping Screw #2 3x12(BR)		2
10-13	ZS325495	Tapping Screw #2 3x6 (BR)		85

REAR PANEL BLOCK

10-14	SP655558	Rear Panel 1	AA-5343	1
10-15x	SP655571	Rear Panel 3 (AA-1050)	AA-5343	1
10-16x	SP672827	Rear Panel 1-A (CSA)	AA-5343	1
10-17x	SP672838	Rear Panel 3-A (AA-1050) (CSA)	AA-5343	1
10-18	EJ603718	Terminal Plate 5P	32-1-55	1
10-19x	ZS421740	Screw, pan head 3x8		2
10-20x	ZW273756	Nut M3		2
10-21x	BT444137	Balum Trans. 75 ohms-300 ohms	23-1-129	1
10-22	SK652397	Knob 0512-2	34-1-4	1
10-23x	ZW553915	Washer D3.5x10x1t		1
10-24x	EJ299316	Jack, 5P din	31-1-24	1
10-25	ZS447761	Tapping Screw #2 3x6 (BR)(Black)		10
10-26	EE668496	Bar Antenna	55-1-30	1
10-27x	TA378268	Antenna Support	AA-5552	1
10-28x	ZS552600	Screw, pan head 4x50		1
10-29x	ZW273914	Spring Washer M4		2
10-30x	ZW420682	Washer (Nylon) D4.2x9x0.5t		2
10-31x	ZW604416	Nut M4		1
10-32	EJ631945	Strain Relief SR-4N-4	2-7-49	1
10-33	EJ650250	Speaker Terminal	32-1-68	2
10-34x	ZS421740	Screw, pan head 3x8		4
10-35x	ZW273756	Nut M3		4
10-36	EJ650261	AC Consent U/L S-16432	31-1-147	3
10-37	EW374894	AC Cord CUL 3M	26-3-19	1

ASSEMBLY BLOCK

10-38x	ZS447840	Tapping Screw #2 3x8 (BR)		4
10-39	ET654186	Power Trans. AA-1040T-5	38-4-374	1
10-40x	BT654197	Power Trans. AA-1050T-5	38-4-375	1
10-41x	BT678205	Power Trans. AA-1050T-2 (AA-1050)(CSA)	38-4-412	1
10-42x	BT678071	Power Trans. AA-1040T-2 (CSA)	38-4-411	1
10-43x	ZW273914	Spring Washer M4		4
10-44x	ZW413188	Nut M4		4
10-45x	EJ552778	Short Pin Plug ASB-2	42-1-65	2
10-46	EC672164	Elect. 6800μF 50WV (Lug Type)	24-10-106	2
10-47x	EC654063	Elect. 10000μF 50WV (Lug Type)(1050)	24-10-101	2
10-48	MI654085	Dial Wheel D54	2-15-12	1
10-49	TA654074	Front End FL424U	57-2-34	1
10-50x	ZS379350	Screw, pan head 3x6		4
10-51x	ES679566	Push SW. SDG-1P TV-5	25-5-204	1
10-52x	EC551160	Ceramic/C. NB821YZ 0.01μF(Z) 1.4 kWV	24-5-55	1
10-53x	EC565896	Ceramic/C. DP6600YM 0.01μF(P) 1.4 kWV (CSA)	24-5-58	1
10-54x	ZW270191	E Jack Nut		1
10-55x	EJ655716	Head Phone Jack 3PMJIE	31-2-67	1
10-56x	EZ668597	Light Mask	AA-5384	1
10-57	EZ651047	Rotary SW. SR-321N 1-2-4 45R	25-7-44	1
10-58x	ES654096	Rotary SW. SR-321N 1-2-7 45R (1050)	25-7-46	1
10-59x	ER678576	Metal Oxide Film/R. ZW 220 ohms(J)	35-15-8	2
10-60x	MB650147	Rubber Bushing No.6552	3-13-44	2
10-61	EL650193	Lamp (Cord Type) 14V 100mA (650M/Mx2)	28-2-47	1
10-62x	EL650158	Lamp (Cord Type) 14V 100mA (200M/Mx2)	28-2-48	1
10-63x	TC494267	Lamp Cover	CG-2206	1
10-64	BF649348	Plywheel Block Comp.		1
10-65x	ZW610503	Washer D11	36-13-2	1
10-66x	ZW610503	Washer D11 (1050)	36-13-2	1
10-67x	ZW610492	Nut M11	36-13-3	1
10-68x	ZW610492	Nut M11 (1050)	36-13-3	1
10-69	MR530651	Roller A	91-5008	3
10-70x	ZS530673	Roller Screw A	91-5010	4
10-71x	ZW678532	Wawher D3.1x8x1t		1
10-72	MR530662	Roller B	91-5009	1
10-73x	TA648191	Screen	AA-5322	1
10-74	TA648358	Scale Plate B	AA-5318	1
10-75x	TA648360	Scale Plate C (1050)	AA-5318	1
10-76x	EZ654355	Lamp Cover	AA-5373	2
10-77x	EL650158	Lamp (Cord Type) 14V 100mA (200M/Mx2)	28-2-48	1
10-78x	EZ652410	Fuse Holder 3P (large)	40-1-68	1
10-79x	EZ672840	Fuse Holder 4P (Large) (CSA)	40-1-77	1
10-80	TA646762	Connector Bar	AA-5239	2
10-81x	ZW270123	'E' Ring 4M	6-1-9	4
10-82x	ZW260122	Washer (Nylon) D6.1x10x1t		2
10-83x	TA646773	Joint	AA-5240	2
10-84x	EZ646626	Meter Cushion	AA-5223	2
10-85	EM664402	Tuning Meter 85C243	46-1-115	1
10-86	EM664413	Signal Meter 85C242	46-1-114	1
10-87	TA648336	Pointer	AA-5328	1
10-88x	TA646784	Pointer Base	AA-5241	1
10-89	TA207347	Thread 1.8m		1
10-90x	EJ254957	Lug Plate KPIL	33-3-2	1
10-91x	EF563703	Fuse 2A 250V	39-1-50	1
10-92x	EF378595	Fuse ST-2 4A (CSA)	39-1-26	1
10-93x	EF371698	Fuse ST-4 0.5A (CSA)	39-1-28	2
10-94x	EF323616	Fuse ST-2 3A (CSA)	39-1-26	1
10-95x	EC551441	Ceramic/C. DD600FZ 0.01μF(Z) 50WV	24-5-65	1
10-96x	E0539820	Peaking Coil 2.2 H(K)	23-1-187	1
10-97x	ER672805	Carbon/R. RD1/2W 2.2M(J) (Insu. Type)	35-9-9	1
10-98x	TA605878	Lead Protecter (CSA)	A5-5007	4
10-99x	SE569744	Knob Escutcheon (CSA)	TD-6017	3

11 PHOTO OF FINAL ASSEMBLY BLOCK

11) FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
	FRONT PANEL BLOCK			
11-1x	BZ658866	Front Panel Block Comp.		1
11-2x	BZ658877	Front Panel Block Comp. (AA-1050)		1
11-3x	SP655536	Front Panel A (AA-1050)	AA-5344	1
11-4	SP655547	Front Panel B	AA-5344	1
11-5	ZW526577	Collar B, Jack	MC-5006	1
11-6x	MZ659777	Reflection Stopper	AA-5269	1
11-7	TA648180	Front Glass	AA-5330	1
11-8	SE613888	Button Escutcheon A	CW-6021	7
	ASSEMBLY BLOCK			
11-9x	SP655593	Bottom Plate	AA-5366	1
11-10x	SP664176	Bottom Plate B (CSA)	AA-5366	1
11-11x	ZS325495	Tapping Screw #2 3x6 (BR)		7
11-12x	TA646806	Fuse Cover	AA-5247	1
11-13x	SZ645243	Circular Foot A	CA-6014	4
11-14	BC655604	Cabinet	AA-5368	1
11-15	ZS510344	Screw, binding head 4x12		4
11-16	SK634410	Push Button Knob J	91-5051	7
11-17	SK646817	Single Knob	AA-5250	4
11-18x	SK645208	Double Knob (Lower) (AA-1050)	AA-5353	2
11-19x	SK644670	Double Knob (Upper) (AA-1050)	AA-5355	2
11-20	SK646841	Single Knob (Small)	AA-5254	2
11-21	SK646830	Selector Knob	AA-5253	3
11-22	SK647987	Tuning Knob (Large)	AA-5332	1

12 LIST OF INTERCHANGEABLE SEMICONDUCTORS

As far as service in concerned, in case the original parts cannot be obtained, the interchangeable parts listed below can be substituted.

Original Parts			Interchangeable Parts	
Description	Parts No.	Utilizing P.C Board	Description	Parts No.
2SA640-1(P)(Q)	ET661836	94-5013	2SA640-1(E)(F)(G)(H) 2SA725(F)(G)(H)	ET204221 ET620381
2SA640-1(E)(F)(G)(H)	ET204221	94-5013	2SA725(F)(G)(H)	ET620381
2SA733 (P)(Q) 2SA733(Q)(R)	ET554657 ET557965	AA-5351A AA-5270A	2SA628(D)(E) 2SA564(Q)(R)	ET538110 ET538154
2SB556(O)(R)	ET655650	94-5013		
2SB557(O)(R)	ET623024	94-5013		
2SC458LG(C)	ET234854	AA-5276A	2SC1000(Y)(GR) 2SC693U(F) 2SC1312S(G)(H)	ET654862 ET315472 ET603257
2SC930(E)(F)	ET618873	AA-5270A	2SC454(B)(C) 2SC372(Y)	ET591366 ET234808
2SC945L(K)(P) 2SC945L(P)(Q) 2SC945L(Q)(R)	ET635220 ET639437 ET635837	AA-5270A AA-5276B A5-5309	2SC1647(R)(S) 2SC711(G) 2SC536(E)(F)	ET658181 ET399870 ET370607
2SC1222(E)(F)	ET459810	AA-5270A AA-5276A	2SC1000(BL)(GR) 2SC1313(G)(H)	ET622181 ET604124
2SC1520-1(L)(K)	ET679814	AA-5351A		
2SC1624(O)(Y)	ET623046	94-5013	2SC1124(1)(2)	ET551564
2SC1628(O)(Y)	ET623035	94-5013	2SC1124(1)(2)	ET551564
2SD426(O)(R)	ET655648	94-5013		
2SD427(O)(R)	ET623013	94-5013		
μPC30C	EI650362	AA-5270A		
LA1230	EI650586	AA-5270A		
LA3350A	EI650597	AA-5270A		
1S2472	ED656278	AA-5351A		
1S2473	ED624903	AA-5270A	1S1588 WG599	ED557447 ED514721
1N4003	ED570295	A5-5309	10D2	ED224548
STV-4H	ED551733		MV303YA	ED655097
HIFI SPECIAL 400V	ED558033	A5-5309	SR3AM-1-B	ED523642
WZ130	ED539976	94-5013 A5-5309		
WZ290	ED515981	AA-5351A		
SEL102R	ED650812	AA-5270B		
SEL103W	ED653624	AA-5270B		

INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
BA658888	1-1	EC450055	1-C60	EF371698	10-93x	EV464196	1-VR3	ZS422965	10-10x
BA658901	3-1	EC450055	1-C72	EF378595	10-92x	EV464231	1-VR4	ZS447761	10-25
BA658912	7-1	EC450213	6-C16	EF563703	10-91x	EV484863	1-VR2	ZS447805	10-12x
BA658945	2-1	EC450527	1-C2	EI650362	1-IC1	EV499364	1-VR1	ZS447840	10-38x
BA658956	2-2	EC450527	1-C13	EI650586	1-IC2	EV551643	2-VR1	ZS510344	11-15
BA658967	6-1	EC450527	1-C44	EI650597	1-IC3	EV650700	6-VR2	ZS523664	10-3x
BA658978	6-2	EC450527	1-C54	EJ254957	10-90x	EV650711	6-VR1	ZS530673	10-70x
BA658980	4-1	EC451451	2-C11	EJ299316	10-24x	EV650722	6-VR3,4	ZS552600	10-28x
BA659013	8-1	EC455354	1-C1	EJ539662	1-2	EV650801	5-VR1	ZW260122	10-82x
BA660003	5-1	EC455354	1-C12	EJ539662	2-3	EV654030	6-VR3,4	ZW270123	10-81x
BA660014	9-1	EC474671	6-C4,5	EJ539662	4-2	EW374894	10-37	ZW270191	10-54x
BA660025	9-2	EC474671	6-C12	EJ539662	5-2	EZ624734	10-9x	ZW273756	10-20x
BC655604	11-14	EC493637	2-C4	EJ539662	6-3	EZ646626	10-84x	ZW273756	10-35x
BF649348	10-64	EC522167	1-C59	EJ539662	7-2	EZ652410	10-78x	ZW273914	10-29x
BT444137	10-21x	EC523271	1-C7	EJ552778	10-45x	EZ652972	8-2	ZW273914	10-43x
BT654186	10-39	EC523271	1-C18	EJ603718	10-18	EZ654355	10-76x	ZW413188	10-44x
BT654197	10-40x	EC523271	1-C47	EJ624486	10-4	EZ655481	10-2	ZW420682	10-30x
BT678071	10-42x	EC523271	1-C71	EJ631945	10-32	EZ655503	10-1	ZW526577	11-5
BT678205	10-41x	EC523282	1-C48	EJ650250	10-33	EZ668597	10-56x	ZW553915	10-23x
BZ658866	11-1x	EC539943	7-C3	EJ650261	10-36	EZ672840	10-79x	ZW604416	10-31x
BZ658877	11-2x	EC539943	7-C7	EJ650272	1-6	MB650147	10-60x	ZW610492	10-67x
EC220410	3-C11	EC551160	3-C1	EJ655716	10-55x	MI654085	10-48	ZW610492	10-68x
EC220432	1-C64,65	EC551160	3-C7to10	EL650158	10-62x	MR530651	10-69	ZW610503	10-65x
EC220432	6-C7	EC551160	10-52x	EL650158	10-77x	MR530662	10-72	ZW610503	10-66x
EC220432	6-C13	EC551441	1-C37	EL650193	10-61	MZ656807	1-3	ZW632226	3-4
EC220590	1-C8	EC551441	1-C39	EM664402	10-85	MZ659777	11-6x	ZW678532	10-71x
EC220590	1-C19	EC551441	1-C52	EM664413	10-86	SE569744	10-99x		
EC220768	3-C4	EC551441	3-C5	EO539820	10-96x	SE613888	11-8		
EC290531	1-C4	EC551441	10-95x	EO645838	1-T2	SK634410	11-16		
EC290531	1-C6	EC556525	2-C6	EO650373	1-T3	SK644670	11-19x		
EC290531	1-C15,16	EC565896	10-53x	EO650384	1-T1	SK645208	11-18x		
EC290531	2-C8,9	EC621257	1-C58	EO650608	1-T4	SK646817	11-17		
EC313108	2-C1	EC650340	1-C9	EO650610	1-L1	SK646830	11-21		
EC320051	1-C53	EC650340	1-C20	EO650823	7-L1,2	SK646841	11-20		
EC321208	1-C56	EC650340	1-C66,67	ER650430	1-F1to3	SK647987	11-22		
EC321221	3-C13	EC650351	1-C10	ER653567	2-R17,18	SK652397	10-22		
EC329771	1-C26	EC650351	1-C21	ER656908	1-T5	SP655536	11-3x		
EC329771	1-C32	EC650417	1-C27,28	ER672805	10-97x	SP655547	11-4		
EC329771	1-C68	EC650417	1-C34	ER678576	10-59x	SP655558	10-14		
EC329771	6-C6	EC650463	1-C42	ES624701	4-SW1	SP655571	10-15x		
EC329771	6-C14	EC650733	1-C35	ES650283	1-SW1	SP655593	11-9x		
EC329782	1-C23	EC650733	6-C2	ES650305	1-SW2	SP664176	11-10x		
EC331828	6-C10	EC650788	4-C1	ES651047	10-57	SP672827	10-16x		
EC336194	6-C1	EC654028	4-C2	ES654096	10-58x	SP672838	10-17x		
EC339063	2-C3	EC654041	2-C7	ES655661	5-SW1	SZ645243	11-13x		
EC346735	6-C15	EC654041	6-C3	ES679566	10-51x	TA207347	10-89		
EC346735	7-C5	EC654052	6-C11	ET234854	6-TR1	TA378268	10-27x		
EC368256	1-C51	EC654063	10-47x	ET452531	3-TR1	TA605878	10-98x		
EC368256	1-C61	EC658001	1-C29	ET452531	3-TR3	TA646648	9-3		
EC370631	2-C5	EC658012	7-C8	ET459810	1-TR1to4	TA646762	10-80		
EC379157	6-C8,9	EC660060	3-C2,3	ET459810	6-TR2,3	TA646773	10-83x		
EC389024	2-C2	EC660060	3-C12	ET554657	7-TR3	TA646784	10-88x		
EC389485	1-C62,63	EC666494	1-C57	ET557965	1-TR6	TA646806	11-12x		
EC394918	1-C3	EC668520	1-C69	ET618873	1-TR7	TA646874	3-2		
EC394918	1-C14	EC669060	1-C70	ET623013	10-5	TA648156	1-4		
EC405044	3-C6	EC672164	10-46	ET623024	10-7	TA648180	11-7		
EC412593	1-C11	ED515981	7-D6	ET623035	2-TR3,4	TA648191	10-73x		
EC412593	1-C22	ED539976	2-D1	ET623046	2-TR5	TA648336	10-87		
EC427228	1-C24,25	ED539976	3-D3	ET623057	2-TR6	TA648358	10-74		
EC427228	1-C31	ED551733	10-11x	ET635220	1-TR5	TA648360	10-75x		
EC427228	1-C36	ED558033	3-D4to7	ET635220	1-TR8to12	TA654074	10-49		
EC427228	1-C40,41	ED570295	3-D1,2	ET635220	4-TR1	TC494267	10-63x		
EC427228	1-C45,46	ED570295	3-D8	ET639437	3-TR2	ZS325495	3-3		
EC427228	1-C49,50	ED624903	1-D1	ET639437	5-TR1,2	ZS325495	10-13		
EC427228	7-C4	ED650812	9-D1,2	ET639437	7-TR4,5	ZS325495	11-11x		
EC427228	7-C6	ED650812	9-D1to3	ET655648	10-6x	ZS379350	10-50x		
EC432808	1-C5	ED653624	8-D1to4	ET655650	10-8x	ZS421740	10-19x		
EC432808	1-C17	ED656278	7-D1to5	ET661836	2-TR1,2	ZS421740	10-34x		
EC450055	1-C38	EE668496	10-26	ET679814	7-TR1,2	ZS422076	1-5		
EC450055	1-C43	EF323616	10-94x	EV361798	2-VR2	ZS422076	9-4		